



NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165



Hurricane Sandy passing east of Florida on October 26, 2012

Thursday February 14: Hurricane and Flooding Awareness Day

Many people will remember 2012 as another year in which south Florida escaped the direct effects of a hurricane. However, a closer look reveals that our region was impacted a total of THREE times by tropical cyclones during the 2012 hurricane season:

Tropical Storm Debby on June 23-24, Tropical Storm Isaac on August 26-27 and Hurricane Sandy on October 26. None of the systems brought hurricane conditions to south Florida, but significant to severe impacts were most definitely felt.

IT'S NOT JUST ABOUT THE WIND

From Debby's tornadoes and flooding, to torrential rains and severe flooding brought by Isaac, to the pounding surf and coastal flooding of Sandy, the 2012 hurricane season was a clear reminder that tropical cyclones are more than just about the wind. The combination of the three storms caused millions of dollars in damage to south Florida beaches and beachfront streets as a result of beach erosion and storm surge. In addition, the torrential downpours associated with Tropical Storm Isaac caused severe flooding in Palm Beach and Broward counties, resulting in millions of dollars in damage as well.

These storms also served to remind South Floridians of our vulnerability to the different impacts associated with tropical systems and the need to prepare adequately for each one. Despite the lack of direct hurricane strikes in recent years, South Florida remains one of the most hurricane-prone regions in the country. This means that we should be prepared every year for the possibility of a tropical storm or hurricane impacting our region.

On average, the center of a hurricane will pass within 50 miles of any point in South Florida every 6 to 8 years. This means that while hurricane strikes are typically not a yearly occurrence, South Florida will at least be significantly threatened a few times a decade, and impacted directly by a hurricane at least once a decade, statistically speaking. Indirect hurricane impacts as well as tropical storms passing over south Florida occur with higher frequency; at least every 2 or 3 years on average.

HURRICANE SAFETY TIPS: Regardless of the short or long term hurricane outlook, South Floridians need to be prepared every year. While the extremely active hurricane seasons of 2004 and 2005 will rarely be repeated, it only takes one big storm to affect our area for long lasting impacts to be felt. Now is the time to begin preparing for the 2013 hurricane season. Develop a plan and have it in place before a storm threatens. Know if you live in a hurricane evacuation. Gather supplies such as bottled water, canned foods and batteries. Remember to buy enough provisions to last a minimum of three to five days in the event of a tropical system affecting our area. Buy and install hurricane shutters. A minimum of preparation can save lives and property.

Remember: It doesn't take a major hurricane to produce significant impacts. Tropical storms directly impacting south Florida have been known to produce severe flooding, damaging winds and tornadoes. Take every tropical cyclone seriously, whether it's a tropical storm or a major hurricane.

It is also important to note that tropical storms and hurricanes are multiple hazard events. While the wind speed is what determines the classification of a tropical cyclone, other storm hazards such as tornadoes, flooding rains, storm surge and pounding surf are just as significant and need to be taken seriously. Historically, it is the water that causes most of the deaths in hurricanes. About 90 percent of all hurricane-related deaths nationwide occur from drowning from either the storm surge or freshwater flooding. As Debby and Isaac illustrated, the threat from storm surge is particularly high along South Florida's coasts, and residents of coastal areas are urged to heed advice from local officials and evacuate whenever storm surge flooding is expected.

People are also urged to be extremely cautious during the storm's aftermath. Typically, more people die after the passage of a storm than during the storm itself. After Hurricane Wilma in 2005, 30 people died after the storm's passage from a combination of factors including carbon monoxide poisoning, injuries while removing debris and vehicle accidents. Extreme care must be used when using generators, and make sure to run them in an outdoor location, not inside the house.



Severe Flooding in Wellington on August 27, 2012 (photo courtesy WPTV)

Flooding

South Florida's occasional torrential rains and flat terrain can lead to flooding. While tropical weather systems produce most of the significant and widespread rain events, flooding also occurs from non-tropical related weather systems. On the afternoon of May 22nd, 2012, two periods of torrential rain affected the Doral and Sweetwater area of Miami-Dade County with a total of 10 inches of rain falling in just a few hours. Similarly, on December 11, a localized thunderstorm sat over Jupiter in northern Palm Beach County for a few hours, also resulting in as much as 10 inches of rain. Both events resulted in significant flooding of local streets and neighborhoods.

PREPARE FOR FLOODING: The flat South Florida terrain lends itself to ponding of water in poorly drained or low lying areas during heavy rain events, rather than the flash flooding that occurs in other parts of the country. While this type of flooding is less deadly or destructive, it can cause significant impacts as water can enter homes and other structures, as well as make driving extremely hazardous due to flooded roadways which can sometimes obscure canals. If water is covering a roadway, do not assume that you can drive through it. Turn around, don't drown.

Torrential rainfall events which produce anywhere from 6 to 8 inches of rain in a short amount of time and lead to severe local flooding occur at least two or three times a year over south Florida. Therefore, all South Floridians need to be aware of their particular neighborhood's vulnerability to flooding. Fortunately, people can also plan well in advance for floods. The best advice is to have flood insurance, a separate policy from your homeowners insurance. Know if you live in an area which floods frequently from heavy rains.

Monitor NOAA Weather Radio before, during and after a tropical cyclone or flood event to stay abreast of the latest information. You can also visit the National Weather Service Miami Forecast Office web site at weather.gov/southflorida where the latest hurricane and flood watches and warnings will be available, as well as the National Hurricane Center's five-day tropical cyclone track and intensity forecast.